REMARKS

With regards to Claims 25 and 37-39, Claim 1 has been amended to add the elements of Claim 16. PAM has been removed as an element of the claim. Therefore, these claims are now allowable over this rejection.

The Examiner has rejected Claims 1, 3-6, 9-17, 20-22, 25 and 28-61 as being anticipated by Horn.

Applicant has amended the claims to state that the water soluble soil stabilizer is bound to the soil and also that the water soluble soil stabilizer is selected from the group consisting of: start xanthate, acid hydrolyzed cellulose microfibrils, chitin, gypsum, hydrocolloidal polysaccharide, acrylic copolymers, and/or sodium acrylate and any combination. Applicant discussed this amendment with the Examiner in a telephone interview.

Horne relates to pumice. Horne states in column 1 lines 31-40 that an important advantage of natural pumice for that purpose is the presence of a large number of small pores or channels, of both macroscopic and microscopic dimensions, that open inwardly from the surface of each particle. A further important characteristic of natural pumice is the unique type of surface roughness that it exhibits, both on the exterior surfaces of pumice particles and on the inner surfaces within the pores. Horne teaches that solid granular substances adhere to the rough pumice surface and become trapped in pores of the pumice. Col 1 lines 46-48 states that an appreciable, and preferably a major portion of the agent becomes firmly attached to individual pieces of pumice.

Horne states in the first paragraph of Col. 1, how extremely difficult it is to find a carrier for chemical agents. Horne states how difficult it has been to obtain satisfactory materials for use as extenders, and that the only satisfactory extender that was found by Horne is pumice rock.

As stated in Col. 1 lines 56-68, the soil conditioning agent may be combined in liquid form with the extending pumice. The agent may be deposited on the surface and in the pores of the pumice by saturation of the pumice with the solution followed by evaporation of the solvent. This will cause an appreciable portion of the liquid to enter and cure in the pores of the pumice, much like water in an ice cube tray.

Col. 2 lines 14-17 states that the newly discovered ability of pumice particles to hold the extended agent firmly on its surface and in its pores permits a very wide variation in the ratio of particle sizes of the two components.

As stated at the bottom of col. 2, a portion of the agent, whether in finely divided solid form or in the form of a liquid, is thereby adhered to the rough pumice surface, partly on the exterior of the pumice particles and partly within the pores that open inwardly from the outer surface of the pumice. The remaining excess of agent is then removed, as by screening and the solvent may be removed by evaporation.

Col. 3 lines 51-62 state that soil treating agents of the type indicated, which are at least slightly watersoluble, are gradually released from the pumice pores by the moisture in the soil. Those portions of the agent that are most deeply embedded in the pumice pores are found to be removed by solution relatively slowly, so that even after direct and repeated leaching of the combination of pumice and a water soluble agent, an appreciable proportion of the agent remains in the composition.

As stated on Col 5, after 2 hours of shaking 9% of the product was removed.

Col. 5 lines 52-56, states that since the adherence of the agent to the rough pumice is essentially a surface effect rather than a volume effect, the proportion of agent to extender in a stable composition of the type described can be regulated, according to the available surface of the extending material.

Col. 5-Col. 6 states that the pore size and number of pore openings per unit of surface area vary considerably with the grade and origin of the pumice. The shape of the pores is ordinarily irregular. The sizes of the pores vary by over 20 times.

For all of the above reasons, Horne does not teach the water soluble soil stabilizers of the amended claims, nor does Horne teach that the soil stabilizer binds to the soil.

For all of the above reasons, the claims are not anticipated or obvious over Horne.

The Examiner has rejected Claims 7, 8, 18, 19 and 62 as being obvious over Horne in view of Hamilton.

Based on the amended claims, it can be seen that the instant invention is directed to aggregating and stabilizer soils through the use of a water soluble soil stabilizer. Hamilton is directed to gel forming polymers aiding in increasing water holding capacity of the soil. For these reasons and these reasons stated above, the above claims are not obvious over the prior art.

Applicant believes that the application is now in condition for allowance.

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